

**ABSTRACT**

The invention contemplates a system and method offering control and management of manufacturing resources (Machine 1, Machine 2 ... Machine n) to obtain optimal manufacturing capacities and to avoid manufacturing down-time currently realized through manual operation and control of manufacturing resources. In an illustrative implementation, the present invention contemplates an exemplary control computing application (180) operating in a computing environment (100) which communicates with, cooperates with, and provides control over at least one manufacturing resource (e.g. manufacturing machine – Machine 1, Machine 2, ... Machine n). The computing application (180) provides at least one instruction set (110') for use in controlling the manufacturing resource. The communication of the instruction set may be realized local to the manufacturing resource, remotely from the manufacturing resource, or some combination thereof.